Report on Global Youth Tobacco Survey (GYTS) 2002, Uttar Pradesh, India

Prepared By

Dr. Dhirendra N Sinha*

Correspondence

Dr. Dhirendra N. Sinha,

School of Preventive Oncology

A/27, Anandpuri,

Boring Canal Road, Patna- 800001, India

dhirendrasinha1@hotmail.com

Executive Summary

Objectives: this report describes the knowledge, attitudes, and behaviour of young people regarding tobacco use, their exposure to environmental tobacco smoke (ETS), Pro-tobacco advertisement. In addition, it reveals the extent to which these young people receive anti-tobacco information in schools.

Method: We conducted a school- based, two-cluster survey (13-15years) in government and private schools using a standardized questionnaire based on the Global Youth Tobacco Survey (GYTS).

Results: Ever tobacco use prevalence was 37.2% for students, 72% of students 1st tried any tobacco use at less than ten years of age. Over three in ten never- smokers and over nine in ten current smokers were exposed to ETS in their homes and in public places. Over 8 in every 10 boys and girls saw a tobacco (Cigarette and Gutka) advertisement on billboards and over 6 in every 10 in other media. One in every five students was offered free cigarettes from a tobacco company representative. Moreover, 4 in every 10 students bought their tobacco products from stores, and almost same were not refused to buy cigarettes because of their age.

Conclusion: The youth prevalence of tobacco use is alarming; especially among girls and is contrary to social norm in India. Young people are daily exposed to ETS, tobacco advertisement and can access tobacco products easily. Immediate action is required to limit youth exposure to ETS and accessibility, issue legislation to prohibit selling to minors, ban tobacco advertising and create a supportive environment to the health of young people.

Preface

The Global Youth Tobacco Survey (GYTS) is the first comprehensive and representative school-based study of youth smoking knowledge, attitudes and beliefs conducted in Uttar Pradesh (UP). This study, which was conducted by School of Preventive Oncology, Patna in collaboration with Tata Institute of Fundamental research Mumbai, used an internationally standardized instrument that facilitates comparing youth behaviour regarding tobacco use at the regional as well as the international level.

Moreover, the study design, data collection and analysis were carried under the direct supervision of the office of Tobacco and Health- Centers for Disease Control and Prevention (OSH/CDC) and the Tobacco Free Initiative South East Asia Regional Office of the World Health Organization (TFI/SEARO/WHO).

Introduction

Tobacco use is one of the chief preventable causes of death in the world. The World Health Organization attributes some four million deaths year to tobacco use, a figure expected to rise to about 8.4 million by the year 2020. By that time, 70% of those deaths wills occur in developing countries. Most people begin using tobacco in their teens, and recent trends indicate rising smoking prevalence rates among children and adolescents and earlier age of initiation. If these patterns continue, tobacco will result in the deaths of 250 million children and adolescents alive today, many of them in the developing world[1]. In India tobacco use is estimated to cause 800,000 deaths annually [2].

The international society, spearhead by the Tobacco Free Initiative (TFI), World Health Organization (WHO), United Nations Children's Fund (UNICEF) and the Office on Smoking and Health (OSH), Centers for Disease Control and Prevention (CDC), has been developing international programs and initiatives to combat this man-made plague which is devastating the lives of millions of people worldwide. However, regardless of the worldwide movement against tobacco, tobacco companies still control the tobacco market. They produce over one trillion sticks, over a billion smokers and influences ever increasing people, especially the young to start smoking every year.

Despite the harm caused by smoking only modest success has been achieved in global tobacco control. It is clear that children and young people are now more at risk than over before; and they should be the primary focus for intervention strategies.

Uttar Pradesh is geographically located at latitude 27.40 N Longitude: 80.00 E, covering a population of166, 052,859(87, 466, 301, Men 78,586,558 women) at a decadal growth rate 25.8%. Density (per sq. km.) was 689 with a sex ratio 898 women per 1000 men and literacy rate was 57.36 (70.2% Men, 42.9 % women).[3]

Uttar Pradesh is the third largest cultivator of tobacco leaf in India. Tobacco is produced mainly in Mainpuri, Muradabad, Farrukhabad and Etah districts in UP[4].Production of dry tobacco leaf in UP has increased from78800 tones in 1990 to152400 tones in 1998 ,almost doubled[4] . There are many Cigarette and gutka factories in the state.

Rules and regulations for tobacco use control in the State are almost absent.

Accurate and representative prevalence data on tobacco use among children and young adults are not available. However, the National family health survey conducted in UP in

1998-99 revealed that 34.0% of adult males and 3.1% of adult females were current smokers and 36.3% of adult males and 11.4% of adult females were current chewers [5]. There are few reports from some districts on community interventions with good results [6] but tobacco control in most of the areas is almost negligible.

The GYTS is a schools-based tobacco specific survey which focuses on adolescent's age 13-15 years (grades 7-10). It assesses students' attitudes, knowledge and behaviour related to tobacco use and exposure to environmental tobacco smoke (ETS), as well as youth exposure to prevention activities in school curricula[7]. Community programs and media messages aimed at preventing and reducing youth tobacco use. Also the GYTS provides information on where tobacco products are obtained and used, as well as the effectiveness of enforcement measures.

The GYTS will attempt to address the following issues:

- Determining the level of tobacco use.
- Estimating the age of initiation of cigarette use.
- Estimating the levels of susceptibility to become a cigarette smoker.
- Estimating the exposure to tobacco advertising.
- Identifying key intervening variable, such as attitudes and beliefs on behavioural norms with regard to tobacco use among young people
- Assessing the extent to which major prevention programs are reaching school-based populations and establish the subjective opinions of those populations regarding such interventions.

Methods

The 2002 UP-GYTS is a school-based cross sectional survey which employed a two-stage cluster sample design to produce represent able sample of students in grades eight to ten in all government and private schools having grade 8-10.

Data about schools (number of students by section/ class and range of ages) were obtained from the Department of Education Department and District education officers' office.

The first stage sample frame consisted of all schools containing any of the grades eight to ten. The data extracted from the Education department documents was forwarded to OSH, CDC to draw the study sample. For each group of schools, a tow- cluster sample design was used to produce a representative sample of students. Schools were selected with probability proportional to school enrollment size. A total of fifty schools were selected. Within each school, a computer generated list of random numbers of classes was produced to randomly select the classes, grades 8-10, to participate in the survey. The second sampling stage consisted of systematic equal probability sampling with a random start of classes from each school that participated in the survey. All classes in the selected schools were included in the sampling frame. All students in the selected classes were eligible to participate in the survey. The total number of eligible classes accounted for 75 strata with an average of 60 students per class. 5245 students and fifty one schools were eligible to participate in the survey. All schools responded. The final sample included 4542 students. The overall response rate was 86.6%.

The questionnaire consisted of a “core” Component and an “option” component. The core questions allow for regional as well as international comparisons of the survey results, while the optional questions concentrate on specific issues pertaining to individual countries.

For India the core questionnaire of the GYTS was suitably expanded to include tobacco use in the form of bidi smoking and smokeless tobacco use. All questions required answering (i.e. there was no skipping or branching pattern). The questionnaire was self administered with no identification information required (name of student, class or school), maintaining complete anonymity. Responses were recorded on optically readable answer sheets.

A weight has been associated with each questionnaire to reflect the like hood of sampling each student and to reduce bias by compensating for differing patterns of no response.
The weight used for estimation is given by: W= W1*W2*F1*F2*F3*F4

W1= the inverse of the probability of selecting the school.

W2= the inverse of probability of selecting the classroom within the school.

F1= a school-level non response adjustment factor calculated by school size category (small, medium, Large).

F2 = a class adjustment factor calculated by school.

F3= a student-level non response adjustment factor calculated by class.

F4 = a post stratification adjustment factor calculated gender and grade.

Survey procedures were designed to protect the student's privacy by allowing for anonymous and voluntary participation. The self-administered questionnaire was administered in the classroom. Students recorded their responses on an answer sheet.

We used EpiInfo2000, a software package that accounted for the complex sampling design and weighing factors in the data set, to calculate standard errors and prevalence estimates. Statistical differences included in this report were determined by comparing the range of the 95% confidence intervals (95%CI) for the estimates. If the ranges for the 95%CI did not overlap then the differences were statistically significant.

The Ministry of Education (MOE), UP (India) provided assistance in terms of schools registry for sample selection, issuing necessary letter of support to the randomly selected schools. One training workshops was conducted in March 2002 and were attended by 10 survey administrators. The participants were assigned to schools and wee responsible for the delivery and collection of all survey documentation forms answer sheers and questionnaires.

Tobacco use was classified as ever use (the use of tobacco even once) and current use (use of tobacco within 30-day preceding the survey).

In India tobacco is used for smoking as well as smokeless use. In Uttar pradesh tobacco is smoked in the form of cigarette, *bidi* (tobacco rolled in tendu leaf) etc

Definition of smokeless tobacco use such as betel quid, *gutka* (industrially manufactured tobacco product, containing areca nut, tobacco and other ingredients), *khaini* (tobacco leaf and lime mixture and also with arecanut), snuff, *gul* (pyrolysed tobacco with some other ingredients, used as dentifrice),*gudaku*(commercially available paste of tobacco

and molasses) tobacco toothpaste and *lal dantamanjan* (red tooth powder). Most of these habits are also common in other parts of India and have been described elsewhere.[8] Most of these products (betel quid, *gutka, khaini* etc.) are chewed whereas some (*gul,* snuff, tobacco tooth paste, red tooth powder etc.) are applied in the oral cavity. The two types of usages were distinguished as chewing and applying.

Attitude towards tobacco use was assessed by the question whether boys who smoke/chew looks more attractive; have more friends (both questions repeated for girls).

Results

A total of 4542 students completed the survey, representing a 86.6% overall response rate, and 73.3% of them were males**.**

Table: 1. Ever use of tobacco and susceptibility by sex, , Uttar Pradesh (India), GYTS-2002.

Category	Ever User Any Tobacco	Ever Smoker	Susceptible Never smoker
Total	37.2(± 7.0)	13.6(±.7.2)	12.0 (±.3.1)
Male	39.2(±.6.5)	14.8(±.7.6)	13.8 (±.3.7)
Female	31.9(±.10.3)	10.2(.(±.8.5)	7.3(± 3.2)

Over one third students had ever used tobacco (Table1) and one in ten had ever smoked. One in five (21.3%) of students who ever smoked cigarettes first tried smoking at less than ten years of age. Among never smokers over one in ten (12.0%) indicated that they were likely to initiate smoking during the next year.

Table 2: Percent of students who use tobacco, India-UP GYTS, 2002

Category	Current Use						
	Any tobacco Product	Any Smoked Product	Smokeless Products	Cigarette	Bidi	Gutkha/ Pan masala	Betel quid with tobacco
Total	21.3(±6.1)	10.6(± 6.4)	19.7(± 6.3)	7.8(±6.7)	1.0(± 0.6)	8.7(± 2.5)	1.9(±1.8)
Male	23.2(±7.0)	11.2(±7.2)	21.6(±7.1)	8.3(±7.6)	1.2(± 0.9)	9.9(± 3.2)	2.3(±2.3)
Female	16.1(± 8.3)	8.9(± 7.1)	14.5(± 8.3)	6.4(± 7.1)	0.6(± 0.5)	5.3(±3.0)	0.8(±0.9)

One in five students (21.3%) currently use any tobacco product, one in ten (10.6%) currently smoked and one in five (19.7%) currently used smokeless tobacco products. Cigarette smoking was reported by 7.8% students.

Smokeless tobacco use in the form of chewing was reported by 13.3%. Among chewers, gutka use was the most popular (62.8%) followed by khaini (22.5%). Among appliers, 54.5% applied tobacco toothpowder, 25.7% Gudaku and 15.7% tobacco tooth paste. Among smokers, cigarette smoking was most popular.

Table: 3.
Dependence in current user by sex, grade and age, Uttarpradesh (India), GYTS-2002

	Dependence in Current user		
	Cigarette	Bidi Smoker	Smokeless Tobacco
Total	33.3(±31.7)	24.6(±25.7)	82.3(±6.6)
Male	27.0(±30.9)	17.1(±22.5)	82.5(±7.7)
Female	78.5(±40.5)	78.5(±40.5)	80.7(±16.7)

Basing on the need for a tobacco product early in the morning as the indicator of addiction, smokeless tobacco user youth in UP can be said to be more addicted to tobacco compared to smokers; over three fourth (82.3%) of smokeless tobacco user and nearly one third of current cigarette and bidi smokers reported that they need a tobacco products (cigarette/bidi/smokeless tobacco) as the first thing in the morning (Table3).

Table 4: Environmental Tobacco Smoke, India- UP GYTS, 2002

Category	Exposed to smoke from others in their home in the past 7 days		Exposed to smoke from others outside their home in the past 7 days		Percent who definitely think smoke from others is harmful to them	
	Never Smoker	Current Smoker	Never Smoker	Current Smoker	Never Smoker	Current Smoker
Total	32.5(± 4.3)	94.7(±5.5)	38.9(± 3.5)	97.3(±2.9)	70.8(±3.9)	4.5(± 4.9)
Male	32.6(±5.8)	94.4(±7.8)	39.5(± 4.8)	97.1(±3.9)	70.7(±4.3)	4.5(±5.9)
Female	32.2(±9.1)	95.8(±9.4)	37.6(±8.7)	98.0(±3.7)	70.9(± 6.3)	4.6(±7.8)

A number of questions were asked on student's exposure and attitudes to ETS. Nearly four in ten students had someone smoke in their homes, in their presence. This exposure was only for the past seven days, with about 8.9% having been exposed daily. In addition, many students had been exposed in other places other than their homes, with approximately a half having been exposed. The majority, over 57%, said smoke from other people was harmful to them. And, so many students (60.7%) were in favor of banning smoking in public places. Current smokers were significantly more likely to be exposed to smoke from others both in their homes as well as outside their homes in past seven days than never users. (Table 4) Never users were 15 times more likely to say that smoke from other people was harmful to them. (Table 4)

Table5: School Curriculum, India-UP GYTS, 2002

Category	Percent taught dangers of smoking	Percent discussed reasons why people their age smoke or chew	Percent taught the effects of tobacco use in class	Percent discussed tobacco and health as part of a lesson in class
Total	47.1(±6.3)	25.1(±2.7)	47.6(±4.0)	62.1(± 5.1)
Male	46.8(±6.9)	25.9(±3.2)	47.3(±3.3)	59.6(±5.3)
Female	47.7(±8.9)	22.7(± 4.5)	48.7(± 7.7)	69.0(±6.0)

Over 6 in every ten students stated that they were taught Tobacco or Health as a lesson. Slightly less than half of students reported for teaching in schools during the last year about dangers of smoking (47.1%), effects of tobacco use (47.6%) and over one third of students had discussed the reasons why people of their age smoke (25.1%).(Table 5) There were no significant differences by gender.

Table 6: Cessation, India- UP GYTS, 2002

Category	Current Smokers	
	Percent desire to stop	Percent tried to stop this year
Total	85.5(±15.3)*	93.2(±8.8)
Male	86.0(±17.5)	91.5(±10.9)
Female	82.7(±23.7)	99.4(±1.3)

Over 8 in every 10 students who currently smoke stated that they desire to stop smoking (76.5%) and that they tried to stop smoking during the past year which failed (93.2%). (Table 6)

Slightly over half of students definitely thought that smoking and chewing tobacco was harmful to their health. (Table 7)

Table 7: Knowledge and Attitudes, India- UP GYTS, 2002

Category	Percent who think smoking is definitely harmful to their health	Percent who think that chewing/applying is definitely harmful to their health
Total	56.2(±5.8)	54.1(±5.5)
Male	55.9(±5.8)	54.6(±5.4)
Female	57.1(± 8.7)	52.7(±7.3)

Three of every ten students thought that smoking makes students (boys and girls) more attractive and smoker students (boys and girls) have more friends. Compared to never tobacco users, current tobacco users were 2-3 times more positive that smoking makes boys more attractive.(Table 8) Almost every current cigarette smokers (95%) reported that smoking make them feel more comfortable in social gatherings and over three fourth of current smokeless tobacco users (75.3%) reported that chewing help relieving toothache/morning motion etc.(Table 8)

Table: 8 Attitude towards tobacco use by others and effects of tobacco, Uttarpradesh (India), GYTS-2002.

	Boys who smoke/chew Looks attractive	Chewing help relieving toothache/morning motion	Tobacco help to feel more comfortable at parties etc.
Never User	28.7(±4.4)	20.4(±4.0)	26.5(±4.2)
Smokeless tobacco user	56.1(±20.9)	75.3(±18.7)	80.2(±10.3)
Current smoker	91.3(±10.0)	87.4(±14.6)	95.0(± 5.4)

Exposure to cigarette advertisements on billboards was reported very high. Over eight in every 10 students had seen these in UP and above that over six in every ten watched lot of such advertisements. The proportions for students that had seen advertisements in other media were less than that. Over six out of every 10 students in UP said they saw cigarette advertisement in TV, news paper and social events.

Current cigarette smoker than never users were significantly more likely to report for watching cigarette advertisement in print media and news papers. (Table 9) Current cigarette smoker than never users were 12 times more likely to report for being offered free cigarette samples by a tobacco company. (Table 9)

Table 9: Media and Advertising(Cigarettes and gutka)India- UP GYTS, 2002

	Never Tobacco User	Current Cigarette smoker
Percent offered free Cigarette by a tobacco company	7.3(± 1.9)	89.6(± 12.3)
Seen a lot of advertisement and media messages about Cigarette on: print media	52.7(± 5.6)	90.2(± 12.0)
Seen a lot of advertisement and media messages about Cigarette on: Newspapers/magazines	32.9(± 3.9)	91.6(±10.5)
Percent offered free Gutka/ pan masala by a tobacco company	7.8(± 2.0)	45.4(± 23.8)
Seen a lot of advertisement and media messages about guthka / pan masala on: Print media	51.9(± 5.1)	84.4(± 8.3)
Seen a lot of advertisement and media messages about guthka / pan masala on: Newspapers/magazines	33.0(± 3.9)	76.5(± 12.1)

Exposure to Gutka/pan masala advertisements on billboards was reported very high. Over eight in every 10 students had seen these in UP. The proportions for students that had seen advertisements in other media were less than that. Over six out of every 10 students in UP said they saw Gutka/pan masala advertisement in TV and news papers and over 5 in every 10 in social events.

Current smokeless tobacco user than never users were significantly more likely to report for watching Gutka/pan masala advertisement in print media and news papers. (Table 9) Current smokeless tobacco users than never users were 5 times more likely to report for being offered free Gutka/pan masala samples by a tobacco company. (Table 9)

Over half of students (53%) had seen lot of bidi advertisements on billboards and nearly one third in social events (31.1%) in UP. Current bidi smokers (69.7%) than never users

(36.1%) were significantly more likely to report for watching bidi advertisement in social gatherings.

Table 10: Access and Availability, UP(India)GYTS, 2002

Category	Percent of Current Smokers who Usually Smoke at Home	Percent of Current Smokeless tobacco users who chew/apply tobacco at home	Percent of Current tobacco users who Purchased tobacco products in a Store	Percent of Current tobacco users who Bought tobacco in a Store Who Were Not Refused purchase Because of Their Age
Total	87.0(± 12.0)	7.7(± 4.8)	36.2(± 11.3)	42.5(± 27.5)
Male	84.6(± 14.6)	6.7(± 6.1)	33.1(± 11.9)	43.2(±25.7)
Female	95.9(± 5.7)	14.8(± 17.1)	51.9(±20.5)	39.0(± 40.7)

Most students 9 in every 10, smoked at their own homes. Nearly 6 in every 10 of current tobacco users got their tobacco from a store in UP. About one third of the current smokers said they bought their own cigarettes and were not refused because of age. (Table10)

Discussion

This study provides first representative database on tobacco prevalence among school going children in the age group of 13-15 years in UP state.

The present study finds that a significant proportion of the youth in the state use tobacco products. Nearly 4 in every 10 of the youth that participated in the survey admitted to have ever used tobacco and nearly 2 in every 10 of the students was currently using any tobacco product, mostly(19.7%) used smokeless tobacco and 10.6% revealed to smoke

any tobacco product. Surprisingly for all categories of tobacco use, there is no significant difference among boys and girls. Tobacco use by girls is not a social norm in India. Uninhibited tobacco promotion in different media is playing key role in breaking the social norm. One other noteworthy feature that emerged from the survey is the high percentage of addiction among them.

UP is one of the states where a lot of tobacco is cultivated [4]. High prevalence of tobacco among the youth in the state could therefore be attributed to easier access of raw tobacco to the young people and high rates of tobacco use in the community by adults [5]. Adults smoking before adolescents create an environment in which adolescent perceive smoking as social norm. This becomes more alarming when adolescent are ignorant about harmful effects of tobacco use and that makes a great difference. In the present study only 4.5% current smokers definitely thought that smoking is harmful for them in contrast to 71% never users and only 11.8% current smokeless tobacco users thought that chewing/applying is harmful for them in contrast to67.5% never users.

The survey results also show that nearly three fourth of the ever tobacco users reported they started tobacco use/smoking at an early age of less than 10. On the possibility for the non-smokers to initiate smoking by the year 2003, almost 12% said they would. Although a significant proportion of young people use tobacco the majority (8 out of 10) of the current smokers who were interviewed said they desire to quite smoking but very few of those who tried were successful. The reasons might be because they (young people) consider smoking as a normal social behaviour and tend to correlated smoking with independence and an appearance of confidence, an image that is intensively

projected in tobacco advertising and promotional activities, and reinforced by movie/music idols who smoke.

Most of the homes and places frequented by the youth interviewed do not have anti-smoking rules within their premises; almost 2 in every 5 and 1 in every 2 students said they were around others who smoke in their homes and other places (other than their homes) respectively, in a week prior to the interviews. The apex court in India has banned smoking in public place [17]. However the efforts to protect non-smokers from the health effects of passive smoking are not being supported by the UP government, that is, at the policy level. Some organizations like Lucknow University have banned smoking on the campus. However enforcement is limited to students and not to the teachers [22].

Threatened by campaigns against direct and passive smoking, Indian tobacco companies and multinationals made major propaganda challenging the fact that passive smoking increases the risks of lung cancer in India last year [23].

Public awareness programs and activities on the harmful effects of tobacco is being carried out sporadically by NGOs and by some health organizations. Few international and national NGOs like INCAT, Indian Society Against Smoking are involved in the anti-smoking awareness campaigns for the reduction in the consumption of tobacco in the State and educating communities involving all section of people especially youth [26] , in line with the Global fight against tobacco smoking . INCAT established a coalition [28] of networks on the fight against tobacco between the public, colleges and schools, women's group etc.

The anti-smoking campaign is however, been diluted by the tobacco Industry who continue to counter attack the campaigns and the government who supports the Tobacco

industry to continue carrying out smoking advertisements in the media, on billboards, at social events etc portraying "Positive" images of using tobacco products; young people are easily influence by these messages, they are made to believe that boys who smoke look more attractive. Youth targeted sports sponsor by tobacco companies and advertising through TV depicting a high life style of smoking [6] ' influence the children's mind and helps initiate smoking in India [14, 15]. In the present study three of every ten students in UP thought that smoking makes students (boys and girls) more attractive and friendly.

On July 18, 2002, the Allahabad High Courts in Uttar Pradesh have banned sale and manufacture of pan masala/ Gutkha but the same has been stayed by the Supreme Court[24]. Very recently Uttar Pradesh government has banned chewing tobacco and breath fresheners, because of mouth cancer risks [24, 25]. But the implementation is nearly at zero level. Youth freely buy cigarettes and gutka from any tobacco retail outlets. The situation has been aggravated by the influx of vendors distributing free tobacco products samples. Nine in every 10 cigarette smokers and 5 in every smokeless tobacco users had been offered free cigarette and gutka samples respectively. Since cigarettes are sold loose, there by making access by everyone easy and relatively "cheap" vendors find this as an advantage to sell more tobacco products and operating at any point. It is hoped that when the comprehensive tobacco control bill will be passed by parliament and subsequently by UP Legislative assembly, the malpractice of selling harmful products like tobacco to young people would be arrested or reduced and tobacco advertising would be regulated. School environment in UP is making considerable contribution on the providing pupils with messages on the harmful effects of tobacco as over 6of every 10 students said that

they were taught tobacco or health as part of lesson in classroom. Nearly half of the students said they had discussed the effects/dangers of smoking tobacco in a classroom. Knowledge on harmful effect of tobacco use among students in UP was reported low. Slightly over half of the students thought that smoking and chewing is definitely harmful to their health .The survey results also show that family members (parents/guardians) assist greatly in educating their children on the dangers of smoking/chewing tobacco. Over nine in every 10 tobacco users and six in every 10 never user students said that family members had discussed the harmful effects of smoking or chewing tobacco. Communities also assist in educating children. Almost all current cigarette smokers (97.8%) said that they received help or advice to stop smoking either from parents or friends, from health programs and health personnel. But, some parents/guardians set a very bad example for their children; nearly 40% of students reported that their parents smoke/chew tobacco. This needs to be continued and extended to other parts of UP. There are several recent reports, predicting an increase in oral cancer incidence in India. This prediction is based upon observation of an increasing prevalence of oral submucous fibrosis, especially in younger individuals, caused by industrially manufactured smokeless tobacco products [10-13]. Majority of tobacco chewers in the present study reported gutka chewing confirming the countrywide trend of increasing gutka use. Gutka is one of the most highly advertised products in almost all media and it is noteworthy that tobacco users reported watching more tobacco advertisement compared to never users. Health professionals in UP feel that primary prevention is the most suitable way to control tobacco related cancer as there is no adequate infrastructure to cope up with tobacco related cancer burden in UP [27]. Primary prevention through awareness programs

are being offered by some organizations but they are limited to some area of UP only. In Mainpuri district of UP an educational intervention for two years resulted in 32.5%boys and 18.8% girls quitting tobacco habit [6].

In Western settings, intervention programs have been successful, at least in delaying initiation of smoking [18-20]. Comprehensive school tobacco control policy comprising a combination of tobacco-free school policies and an evidence-based curriculum linked to community wide programs involving families, peers, and organizations with counter marketing campaigns and community-based activities have shown a success in reducing smoking in schools in USA[21]. There is greater potential for school-based awareness programs in UP as well as whole of India followed by cessation initiative.

Recommendations

Based on the findings of the study, the following recommendations are made;

(1) Intensification of education and awareness campaigns as majority of them are ignorant of the risks associated with the use of tobacco products/ ETS. There is need for full involvement of the Ministry of Education, Ministry of Health, and NGO's religious and traditional authorities for the campaigns to be more effective.

(2) Schools in UP need to have curricular practices and tobacco policy prohibiting tobacco use by students, school personnel and any visitor in school premises. And also since a significant proportion of the youth start smoking at the age of 10 (or less), there is

need for tobacco control education to be introduced at an early age, possibly at school inception and those parents and guardians must be involved in the campaign.

(3) Lobbying for anti tobacco legislation, which will regulate marketing and distribution of tobacco products and ban tobacco advertisements and tobacco sponsorship to sports. It would be useful to monitor how the tobacco industry adapts its strategies to induce young people into smoking so that appropriate Counteractions should be developed.

(4) Framework public policies and enact and enforce tobacco control legislation that would prevent the youth from buying tobacco products and tobacco trade.

(5) Training of media personnel on how to effectively inform and educate the public, more especially the youth, on issues pertaining to tobacco use.

(6) In order to obtain a more comprehensive picture of tobacco prevalence among the youth in the state, the survey needs to be repeatedly done (possibly once in every three years) and should also be expanded to the youth who are not school gores.

In sum, the study revealed rampant and ravaging use of tobacco among the youth in the state. It is therefore, imperative that all possible expedient actions be taken to redress the situation that can be addressed by a good tobacco control legislation and policy.

Acronyms and Abbreviations

UP Uttar Pradesh

CDC Centre for Disease Control

ETS Environmental Tobacco Smoke

FCTC Framework Convention on Tobacco Control

GYTS Global Youth Tobacco Survey

NGO Non Governmental Organization

TFI Tobacco Free Initiative

WHO World Health Organization

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